

B. In the Claims

Please amend the claims as indicated. Upon entry of the present amendment, the status of the claims will be as follows:

1. (Currently amended) A fusion protein comprising:

a) a reporter polypeptide linked to a linker polypeptide comprising a protease cleavage site;

61 wherein said reporter polypeptide is an enzyme, or a transcriptional activator, ~~or a~~ polypeptide having an epitope that can be bound by an antibody or active antibody fragment; and

b) a repressor polypeptide that represses the activity of the reporter polypeptide by conferring a specific localization in a cell such that the reporter polypeptide has reduced activity, wherein said repressor polypeptide is linked to the linker polypeptide, and

wherein, upon cleavage of said linker polypeptide at said protease cleavage site, an increase in increases the activity of said reporter polypeptide can be detected.

2. (Original) The fusion protein of claim 1, wherein said protease cleavage site is a caspase cleavage site.

3. (Previously amended) The fusion protein of claim 1, wherein said repressor polypeptide comprises a polypeptide sequence that directs the localization of said fusion protein outside of the nucleus of a cell.

4. (Original) The fusion protein of claim 3, wherein said repressor polypeptide is an N-terminal fragment of CD4.

5. (Original) The fusion protein of claim 3 wherein said reporter polypeptide is a transcription factor.

6. (Original) The fusion protein of claim 5, wherein said transcription factor is C-terminal Lex A-B42 transcription factor.

7. (Original) The fusion protein of claim 3, wherein said repressor polypeptide is amyloid precursor protein.

8. (Original) The fusion protein of claim 1, wherein said reporter polypeptide is a kinase.

57. (Previously added) The fusion protein of claim 1, wherein the reporter polypeptide is a transcription factor.

62 58. (Currently amended) The fusion protein of claim 1, wherein the ~~inhibitor~~ repressor polypeptide is a transmembrane protein and the linker peptide is linked to the intracellular domain of the transmembrane protein.